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# A new species of *Tantilla* of the *taeniata* group (Squamata: Colubridae) from Refugio de Vida Silvestre Barras de Cuero y Salado in Caribbean coastal Honduras

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***Abstract.*—A new species of *Tantilla* is described from the Refugio de Vida Silvestre Barras de Cuero y Salado (RVSBCS), on the Caribbean coast of Honduras. Assigned to the *Tantilla taeniata* group, this species differs from others in this group in color pattern, numbers of scales, measurements, and habitat. An incomplete pale nuchal collar and a pale mediodorsal stripe extending to the proximal edge of the paravertebral rows on the anterior third of the body are present. The lateral extension of the head cap does not completely separate the postocular pale spot from the pale nuchal collar. A pale lateral stripe is present on the adjacent halves of dorsal scale rows 3 and 4. The ventrolateral ground color is much darker than that of the dorsolateral ground color. The ventral + subcaudal number of 244 is the highest figure for the males of species in the group. The RVSBCS is an important coastal protected area in Mesoamerica, due to its significant coastal diversity, including iconic species, in addition to harboring this centipede snake.**

**Keywords.** Centipede snake, Departamento de Atlántida, protected area, Reptilia, Río Salado, taxonomy

***Resumen.*—Describimos una nueva especie de *Tantilla* del Refugio de Vida Silvestre Barras de Cuero y Salado (RVSBCS), en la costa caribeña de Honduras. Asignada al grupo *Tantilla taeniata*, esta especie difiere de otras en este grupo en cuanto a patrón de color, número de escamas, medidas y hábitat. Están presentes un collar nucal pálido incompleto y una franja mediodorsal pálida que se extiende hasta el borde proximal de las filas paravertebrales en el tercio anterior del cuerpo. La extensión lateral de la tapa de la cabeza no separa completamente la mancha pálida postocular del collar nucal pálido. Una franja lateral pálida está presente en las mitades adyacentes de las filas de escamas dorsales 3 y 4. El color de fondo ventrolateral es mucho más oscuro que el color de fondo dorsolateral. El número ventral + subcaudal de 244 es la cifra más alta para los machos de las especies del grupo. El RVSBCS es una importante área costera protegida en Mesoamérica, ya que tiene una importante diversidad costera, incluidas especies icónicas, además de albergar a esta serpiente tragaciempiés.**

**Palabras Claves.** Área protegida, Departamento de Atlántida, Reptilia, Río Salado, serpiente ciempiés, taxonomía

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## Introduction

The colubrid genus *Tantilla* currently consists of 66 species (Wilson 1982; Wilson and Mata-Silva 2015; Batista et al. 2016; Koch and Venegas 2016; Hofmann et al. 2017; McCranie and Smith 2017; Uetz et al. 2020). Collectively, members of this genus are distributed from portions of many US states (Virginia, Indiana, Illinois, Missouri, Nebraska, Kansas, Colorado, Utah, Nevada, and California), southward through the peninsula of Baja California, most of mainland Mexico, throughout Central America, and into South America (as far south

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as southern Peru, Bolivia, northern Argentina, and Uruguay). This genus also occurs on Isla del Carmen in the Gulf of California, the Tres Marías Islands off the Pacific coast of mainland Mexico, Isla Cozumel off the coast of the Yucatan Peninsula, the Bay Islands off the northern coast of Honduras, and Trinidad and Tobago in the British West Indies (Wilson 1999: 26). Due in part to their cyptozoic nature, relatively few specimens of many of the 66 described species have been collected, and 13 are known thus far only from their respective holotypes (Wilson and Mata-Silva 2015; Batista et al. 2016; Hofmann et al. 2017; McCranie and Smith 2017).

Wilson (1999) divided the genus *Tantilla* into five phenetic groups: *T. calamarina*, *T. coronata*, *T. melanocephala*, *T. planiceps*, and *T. taeniata*. These groups collectively contained 37 of the 53 species (69.8%) included in the genus at the time that paper was written. As noted by Wilson and Mata-Silva (2015: 451), "Wilson and Mata-Silva (2014) suggested that [*Tantilla rubra*] could be one of three (including *T. bocourti* and *T. cucullata*…) that might comprise a so-called *rubra* group" and that "Dixon et al. (2000) provided partial support for this hypothesis, by indicating that *T. cucullata* presumably is the sister taxon of [*T. rubra*]." Eleven of the 13 species described or resurrected from synonymy subsequent to Wilson (1999) have been allocated to the *calamarina* group (*T. ceboruca*, *T. sertula*), the *melanocephala* group (*T. armillata*, *T. boipiranga*, *T. ruficeps*), or the *taeniata* group (*T. excelsa*, *T. gottei*, *T. hendersoni*, *T. olympia*, *T. psittaca, T. stenigrammi*). Two additional species described after Wilson (1999) have not been allocated to a phenetic group, i.e., *T. robusta* (Canseco-Márquez et al. 2002) and *T. tjiasmantoi* (Koch and Venegas 2016); the latter species, however, appears to resemble *T. semicincta* (Wilson 1976), in that both species have a pattern of dark transverse bands. Holm (2008) allocated *T. alticola*, *T. bairdi*, *T. moesta*, *T. schistosa*, and *T. semicincta* to the *taeniata* group and *T. petersi* to the *melanocephala* group. However, that work remains unpublished; therefore, its conclusions have not been subjected to peer review so they are considered as unsubstantiated and not followed here. Holm (2008) also noted that *T. albiceps*, *T. nigra*, *T. shawi*, and *T. supracincta* have many unique character states making them difficult to allocate to a species group; and we agree with this statement for the reasons indicated. This statement also seems applicable to *T. robusta*, although Canseco-Márquez et al. (2002) remarked that this species resembles *T. schistosa* in color pattern. This species also can be noted to resemble *T. alticola* in the same way.

Initially, Wilson and Meyer (1971) divided the *Tantilla taeniata* group into six species, distributed geographically from Oaxaca in Mexico to northwestern Colombia. This is currently the largest group in the genus, including 25 described species (Smith and Williams 1966; Wilson 1983; McCranie 2011b; Townsend et al. 2013; Batista et al. 2016; McCranie and Smith 2017), which comprises 37.9% of the 66 species now recognized (*The Reptile Database*; accessed 13 May 2020). As noted in the recent revision of McCranie and Smith (2017: 338), "the *Tantilla taeniata* group members are characterized by the possession of dark dorsal surfaces with pale middorsal and lateral stripes, and by having a pale nuchal collar. Those stripes are occasionally reduced to dashes or dots in a few species, and the nuchal collar is complete, incomplete, or reduced in a few species."

In May 2018, a distinctively patterned *Tantilla* was collected from a coastal locality within the boundaries of Refugio de Vida Silvestre Barras de Cuero y Salado (RVSBCS) in Honduras. The specimen exhibits the general characteristics of coloration used to define members of the *Tantilla taeniata* group, but it also exhibits clear diagnostic differences from all nominal species in terms of coloration, features of scutellation, measurements, and habitat. Efforts to collect additional specimens of *Tantilla* from RVSBCS (in September 2018, November 2018, and May 2019) were unsuccessful, but we consider the characteristics of the single specimen to be sufficiently distinctive to warrant recognition as a distinct species, which is described herein.

## Materials and Methods

The description of the holotype follows those in Campbell (1998), McCranie (2011b), Townsend et al. (2013), and McCranie and Smith (2017). Morphological measurements were made with an analogue caliper Mitutoyo +0.02 mm series (No. 51490093) and an LW Scientific DM Series Stereoscopic Microscope. A considerable amount of time was spent examining the shapes, sizes, and proportions of the scales of the head following Savage (1973), and determining the numbers of ventral, dorsal, and subcaudal scales following Dowling (1951). The following measurements were recorded: total length (TOL); snout-vent length (SVL), taken from the tip of the rostral to the posterior edge of the cloacal scute; tail length (TAL), taken from the posterior edge of the cloacal scute to the tip of the tail; head length (HL), taken from the tip of the rostral to the posterior end of the upper jaw; and head width (HW), taken at the widest part of the head. The lengths and widths of some head scales were measured to provide a more detailed description of the specimen.

The color pattern of the holotype in life is described based on digital photographs taken with a Canon Rebel T3 Camera, as well as the pattern after the specimen was preserved in alcohol, following Campbell (1998). The letter codes of the colors in parentheses below are based on Köhler (2012). The patterns and types of colors and morphological measurements (including numbers and shapes of the scales), are compared between the specimen collected and all known species of the *Tantilla taeniata* group, based on the data in Townsend et al. (2013), Batista et al. (2016), and McCranie and Smith (2017).

**Fig. 1.** Dorsolateral view of the holotype of *Tantilla lydia* **sp. nov.** (UVS-V 1189) in life. *Photo by Cristopher Antúnez-Fonseca.*

The description of the hemipenis follows the descriptions of *T. psittaca* (McCranie 2011b), *T. olympia* (Townsend et al. 2013), and *T. hendersoni* (Hofmann et al. 2017).

Following the morphological species limits within the *Tantilla taeniata* group by Campbell and Smith (1997), Campbell (1998), and McCranie and Smith (2017), the definition of this new species is based on characteristic features of color pattern, such as the middorsal and lateral stripes; the nuchal collar; the coloration of the head, dorsum, and venter; the numbers of ventral, subcaudal, dorsal, and head scales; and the total length, snout-vent length, and tail length. This new species is described based only on the holotype, following the procedures in Campbell and Smith (1997), Stafford (2004), Townsend et al. (2013), and Batista et al. (2016).

## Results

***Tantilla lydia* sp. nov.**
Figs. 1–2.
**Suggested common name.** Lydia's Little Snake.

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**Holotype.** An adult male, Universidad Nacional Autónoma de Honduras en Valle de Sula ([UVS-V] 1189), from Comunidad Salado Barra in Refugio de Vida Silvestre Barras de Cuero y Salado (15.7633°N, 86.9948°W), elevation 7 m asl, Municipio de El Porvenir, Departamento de Atlántida, Honduras, collected 21 May 2018 by Cristopher Antúnez-Fonseca, Farlem España, Jocelyn Castro, Emmanuel Orellana, José Paz, and Lourdes Alvarado. Original field number CS 15.

**Diagnosis.** *Tantilla lydia* **sp. nov.** is a member of the *Tantilla taeniata* species group, but distinguished from all other congeners by possessing the following combination of characteristics: (1) pale middorsal stripe dark-edged, occupying middorsal scale row and adjacent third of paravertebral rows on anterior third of body, reducing to median half of vertebral row on remainder of body, beginning approximately on tenth middorsal scale past parietals, posterior to more or less circular pale spot just posterior to dark nape band located behind pale nuchal collar; (2) pale nuchal collar incomplete dorsally, divided by dark coloration on vertebral scales and connecting to dark posterior border of dark head cap and dark nape band; (3) lateral extension of dark head cap incomplete, not completely separating postocular pale spot from pale nuchal band; (4) subocular dark spot present, not extending to lip; (5) ventrolateral region of body a much darker shade of brown than dorsolateral region; (6) pale lateral stripe well defined, dark edged, located on adjacent halves of dorsal scales 3 and 4; (7) paraventral scale completely pale on anterior portion, gradually darkening dorsally, until becoming completely dark at the beginning of tail; (8) postnasal and preocular narrowly separated; (9) 169 ventrals, 75 subcaudals, and 244 ventrals + subcaudals in the single male holotype.

*Tantilla lydia* can be differentiated from the other members of the *T. taeniata* group (Tables 1–2) by having (scutellation data for males only): 169 ventrals (vs. 152 in *T. berguidoi*, 139–152 in *T. brevicauda*, 172 in *T. briggsi*, 139–145 in *T. cuniculator*, 154–166 in *T. flavilineata*, 142–158 in *T. gottei*, 157 in *T. hendersoni*, 162–165 in *T. impensa*, 144–147 in *T. jani*, 144–159 in

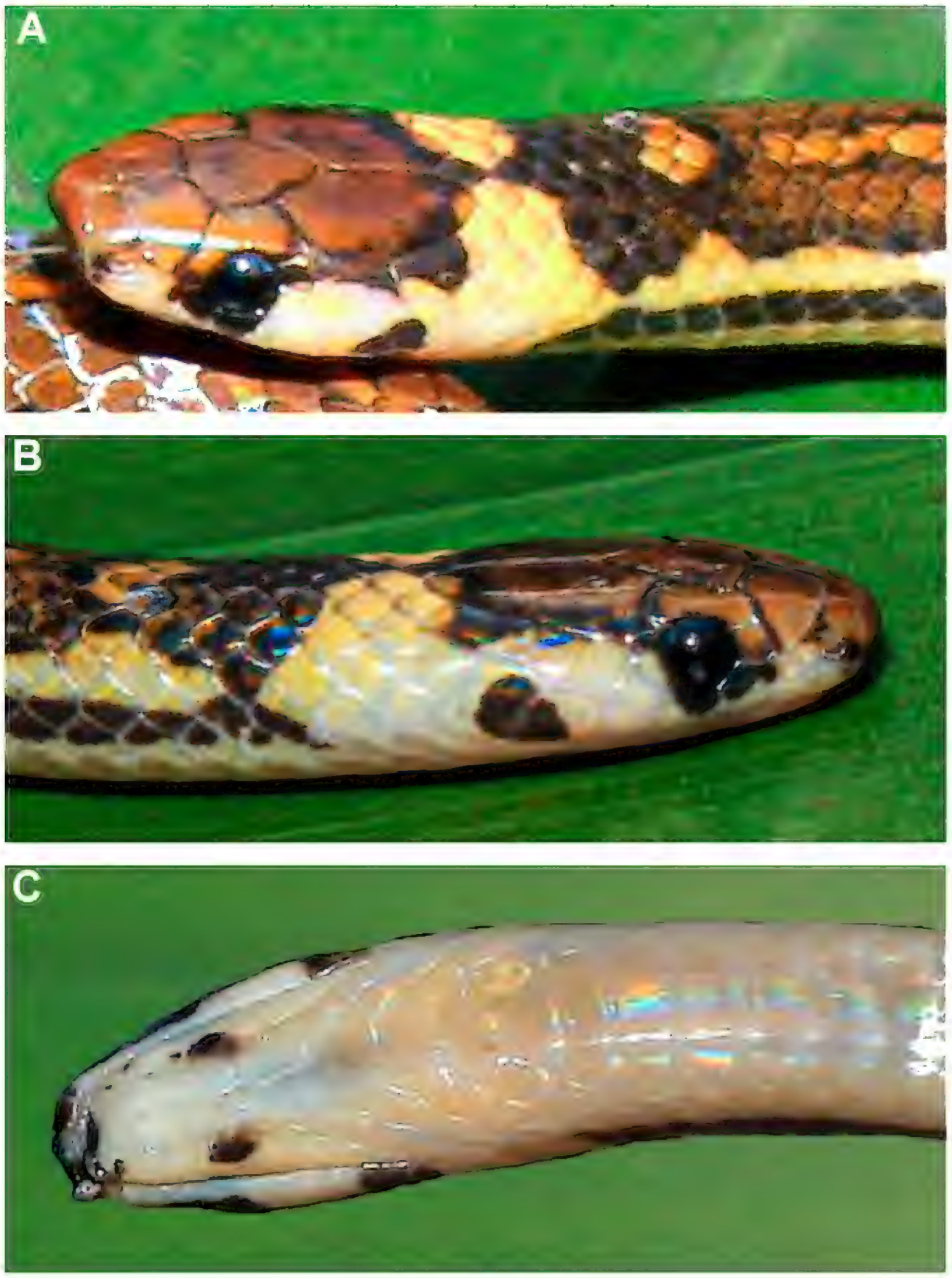


**Fig. 2.** Dorsal **(A)**, lateral **(B)**, and ventral **(C)** views of the head and nape of the holotype of *Tantilla lydia* **sp. nov.** (UVS-V 1189). *Photos by Cristopher Antúnez-Fonseca.*

*T. johnsoni*, 151–158 in *T. oaxacae*, 148 in *T. olympia*, 153–163 in *T. psittaca*, 158–159 in *T. reticulata*, 164 in *T. stenigrammi*, 146–161 in *T. striata*, 141–152 in *T. taeniata*, 140–144 in *T. tayrae*, 157 in *T. tritaeniata*, and 136–146 in *T. vulcani*); 75 subcaudals (vs. 65 in *T. berguidoi*, 22–26 in *T. brevicauda*, 68 in *T. briggsi*, 53–58 in *T. cuniculator*, 70 in *T. excelsa*, 51–56 in *T. flavilineata*, 62–67 in *T. gottei*, 70 in *T. hendersoni*, 68–72 in *T. impensa*, 44–47 in *T. jani*, 62 in *T. johnsoni*, 46–52 in *T. oaxacae*, 49 in *T. olympia*, 63–73 in *T. psittaca*, 60–67 in *T. reticulata*, 33–42 in *T. striata*, 60–70 in *T. taeniata*, 46–49 in *T. tayrae*, and 39–50 in *T. vulcani*); pale nuchal band narrowly divided middorsally (vs. obscure but complete in *T. berguidoi*, complete dorsally in *T. brevicauda*, *T. cuniculator*, *T. excelsa*, *T. flavilineata*, *T. gottei*, *T. johnsoni*, *T. stenigrammi*, *T. taeniata*, *T. tecta*, *T. trilineata*, and *T. triseriata*, and reduced to two nuchal spots in *T. striata*); by having nuchal band extending onto parietals (vs. nuchal band confined to scales posterior to parietals in *T. hendersoni*, *T. slavensi*, and *T. tayrae*); pale middorsal stripe occupying middorsal scale row and adjacent portions of paravertebral rows on anterior third of body, narrowing to median portion of middorsal scale row on remainder of body (vs. confined to median portion of middorsal scale row length of body in *T. berguidoi*, restricted to spots on vertebral row in T. *brevicauda*, *T. jani*, *T. olympia*, and *T. vulcani*, absent in *T. briggsi*, *T. cuniculator*, and *T. johnsoni*, absent or barely indicated, consisting of series of disjunct paler spots on anterior portion of middorsal scales length of trunk or some portion of anterior end thereof in *T. tayrae*, present on middorsal scale row and some portion of paravertebral scale rows length of body in *T. excelsa*, *T. flavilineata*, *T. gottei*, *T. oaxacae*, *T. psittaca*, *T. reticulata*, *T. striata*, *T. taeniata*, and *T. tritaeniata*, confined to middorsal scale row length of body in *T. hendersoni*, *T. impensa*,

**Table 1.** Selected features of measurements, proportion, and scutellation of the members of the *Tantilla taeniata* group. Modified from Townsend et al. (2013).

| Species | Maximum total length (mm) | Ventrals (♂) | Subcaudals (♂) | Ventrals (♀) | Subcaudals (♀) | Tail/total length ratio (%) |
|---|---|---|---|---|---|---|
| *T. lydia* **sp. nov.** | 344 | 169 | 75 | — | — | 23.8 |
| *T. berguidoi* | 408 | 152 | 65 | — | — | 25.2 |
| *T. brevicauda* | 171 | 139–152 | 22–26 | 148–160 | 21–22 | 9.9–12.9 |
| *T. briggsi* | 301 | 172 | 68 | — | — | 22.6 |
| *T. cuniculator* | 220 | 139–145 | 53–58 | 140–154 | 48–53 | 19.7–22.9 |
| *T. excelsa* | 400 | 169 | 70 | 161–178 | 61 | 23.0–24.0 |
| *T. flavilineata* | 293 | 154–166 | 51–56 | 152–168 | 43–49 | 17.7–20.6 |
| *T. gottei* | 391 | 142–158 | 62–67 | 147 | 61–70 | 23.0–26.0 |
| *T. hendersoni* | 358 | 157 | 70 | 151–153 | 64 | 23.9–24.9 |
| *T. impensa* | ca. 725 | 162–165 | 68–72 | 164–172 | 65–72 | 21.0–25.0 |
| *T. jani* | 242 | 144–147 | 44–47 | 144 | 47 | 15.7–20.7 |
| *T. johnsoni* | 353+ | 144–159 | 62 | — | — | 22.5 |
| *T. oaxacae* | 284 | 151–158 | 46–52 | 145 | 45–48 | 19.9–21.2 |
| *T. olympia* | 338 | 148 | 49 | — | — | 20.7 |
| *T. psittaca* | 413 | 153–163 | 63–73 | 154–161 | — | 24.1–25.2 |
| *T. reticulata* | 312 | 158–159 | 60–67 | 162–173 | 59–70 | 21.7–24.1 |
| *T. slavensi* | 346 | — | — | 158–159 | 52–56 | 19.9–24.6 |
| *T. stenigrammi* | 173+ | 164 | — | 159 | — | — |
| *T. striata* | 217 | 146–161 | 33–42 | 145–163 | 31–34 | 13.0–17.0 |
| *T. taeniata* | 415 | 141–152 | 60–70 | 150 | 59 | 23.0–27.0 |
| *T. tayrae* | 360 | 140–144 | 46–49 | 146–154 | 44–51 | 18.5–20.3 |
| *T. tecta* | 222 | — | — | 148 | 54 | 23.0 |
| *T. trilineata* | Tail incomplete | — | — | 149 | 41+ | — |
| *T. triseriata* | 375 | — | — | 159–167 | 58–63 | 19.7–22.2 |
| *T. tritaeniata* | 273 | 157 | — | 155–161 | 59–65 | 22.7–23.6 |
| *T. vulcani* | 247 | 136–146 | 39–50 | 141–154 | 38–47 | 15.4–22.0 |

*T. tecta*, and *T. trilineata*, confined to middorsal scale row, becoming increasingly obscured and fragmented posteriorly in *T. slavensi*, and confined to middorsal scale row anteriorly and extending onto adjacent edges of paravertebral scale rows posteriorly on body in *T. stenigrammi, T. tecta,* and *T. triseriata*); pale lateral stripe well-defined, occupying adjacent portions of dorsal scale rows 3 and 4 (vs. occupying dorsal scale 4 and adjacent halves of rows 3 and 5 in *T. berguidoi*, *T. excelsa*, *T. flavilineata*, *T. oaxacae*, *T. reticulata*, and *T. stenigrammi*, poorly defined, occupying all of row 4, upper half of row 3, and sometimes lower portion of row 5 in *T. brevicauda*, interrupted on adjacent portion of scale rows 3 and 4 in *T. briggsi*, barely discernible on adjacent portions of scale rows 3 and 4 in *T. cuniculator*, absent or occupying portion of adjacent portions of scale rows 3 and 4, most clearly or barely evident on anterior portion of trunk in *T. johnsoni* and *T. tayrae*, well-defned, consisting of spots on scale row 4 in *T. olympia*); paraventral scale pale anteriorly, gradually darkening until reaching tail (vs. uniformly tan, brown, or dark brown length of body in *T. berguidoi*, *T. brevicauda*, *T. cuniculator*, *T. jani*, *T. johnsoni*, *T. oaxacae*, *T. reticulata*, *T. striata*, *T. tayrae*, *T. tecta*, and *T. vulcani*, lower portion pale, distinctly set off from dark upper half length of body in *T. briggsi*, *T. gottei*, *T. hendersoni*, and *T. impensa*, lower two-thirds anteriorly and about lower one-third posteriorly white similar to color of ventrals in *T. excelsa*; dark streak on posterior portion of otherwise pale colored scale in *T. flavilineata*, with pale center, edged with dark pigment in *T. olympia*, lower two-thirds pale, area with pale pigment slightly decreasing posteriorly on body in *T. psittaca*, lower half pale, distinctly set off from dark brown upper half in *T. slavensi* and *T. taeniata*, lower half to two-thirds of scale row 1 colored similarly to ventrals in *T. stenigrammi*, unpigmented on anterior half or more of body, upper half darkly pigmented thereafter in *T. triseriata*, lower tip pale, decreasing in amount of coverage posteriorly in *T. tritaeniata*); and by venter immaculate white (vs. increasingly involved with ventral edge of ventrolateral dark stripe proceeding toward tail tip in *T. berguidoi*, sometimes lightly pigmented in *T. brevicauda*, immaculate cream anteriorly to pale pink posteriorly in *T. briggsi*, immaculate reddish-orange in *T. cuniculator*, white with little or no dark spotting in *T. excelsa*, scattering of brown pigment in *T. flavilineata*, edged with dark brown spotting in *T. jani*, with slight extension of tan coloration of first scale row

**Table 2.** Selected characteristics of the color pattern in members of the *Tantilla taeniata* group. Modified from Townsend et al. (2013).

| Species | Nuchal band | Pale middorsal stripe | Pale lateral stripe | Paraventral scale | Lateral edges of ventral scales |
|---|---|---|---|---|---|
| *T. lydia* **sp. nov.** | Interrupted dorsally, extends onto parietals, crosses last supralabial | Occupying middorsal scale row and adjacent third of paravertebral rows on anterior third of body, reducing to middorsal row on remainder | Occupies adjacent halves of scale rows 3 and 4 | Pale anteriorly, gradually darkening until reaching tail | Immaculate white |
| *T. berguidoi* | Obscure, beginning on posterior portions of parietals and extending posteriorly onto middorsal scale immediately behind median parietal suture, laterally grading into pale pigment on posterior portion of last supralabial and nuchal scale posterior to last supralabial and posterior temporal scale | Confined to median portion of middorsal scale row | Occupies dorsal scale 4 and adjacent halves of scale rows 3 and 5 | Uniformly dark brown | Increasingly involved with ventral edge of ventrolateral dark stripe proceeding toward tail tip |
| *T. brevicauda* | Complete dorsally, extends onto parietals and does or does not cross last supralabial | Reduced to spots on vertebral scales | Poorly defined, occupying upper half of row 3, all of row 4, and sometimes lower portion of row 5 | Uniformly brown to dark brown | Sometimes lightly pigmented |
| *T. briggsi* | Interrupted dorsally, extends onto parietals and crosses last supralabial | Absent | Interrupted on adjacent halves of scale rows 3 and 4 | Lower half pale, distinctly set off from dark upper half | Immaculate cream anteriorly to pale pink (red-orange in life?) posteriorly |
| *T. cuniculator* | Complete dorsally, extends onto parietals and crosses last supralabial | Absent | Barely discernible on adjacent halves of scale rows 3 and 4 | Uniformly brown | Immaculate reddish-orange |
| *T. excelsa* | Complete dorsally, extends onto parietals and crosses last supralabial | Extends along the body at least to middle of tail, on the vertebral row and adjacent third of paravertebral rows | Well defined on adjacent halves of rows 3 and 4 | Lower two-thirds anteriorly and about lower third posteriorly of scale row 1 white similar to color of ventrals | White with little or no dark spotting |
| *T. flavilineata* | Complete dorsally, does or does not extend onto parietals and crosses last supralabial | Occupies middorsal and adjacent halves of paravertebral scale rows | Well defined on row 4 and adjacent halves of rows 3 and 5 | Dark streak on posterior portion of otherwise pale colored scale | Scattering of brown pigment |
| *T. gottei* | Complete dorsally, extends onto parietals and crosses last supralabial | Extends length of the body and most of tail on vertebral row and adjacent third of paravertebral rows | Adjacent third to three-quarters of scale rows 3 and 4 | Lower two-thirds of row 1 scales colored similarly to ventrals | Immaculate white to yellow |

**Table 2 (continued).** Selected characteristics of the color pattern in members of the *Tantilla taeniata* group. Modified from Townsend et al. (2013).

| Species | Nuchal band | Pale middorsal stripe | Pale lateral stripe | Paraventral scale | Lateral edges of ventral scales |
|---|---|---|---|---|---|
| *T. hendersoni* | Interrupted or complete dorsally, does not extend onto parietals, but does cross last supralabial | Confined to middorsal scale row | Occupies adjacent thirds of scale rows 3 and 4 | Lower half pale, distinctly set off from dark upper half | Immaculate white |
| *T. impensa* | Complete or interrupted dorsally, extends onto parietals or not and crosses last supralabial | Occupies medial two-thirds of middorsal scale row | Occupies adjacent halves of scale rows 3 and 4 | Lower half cream to yellow, upper half dark brown | Immaculate cream |
| *T. jani* | Interrupted dorsally and laterally, medial portion extends onto parietals and lateral portion crossing last supralabial | Reduced to series of small spots on vertebral scale row | Narrow, occupying adjacent thirds of scale rows 3 and 4 | Primarily uniformly dark brown | Edged with dark brown spotting |
| *T. johnsoni* | Complete dorsally, extends onto parietals and crosses last supralabial | Absent | Absent or occupying portion of adjacent halves of scale rows 3 and 4, most clearly on anterior portion of trunk | Uniformly tan to dark tan | Immaculate cream |
| *T. oaxacae* | Usually interrupted dorsally, extends onto parietals, but does not cross last supralabial | Occupies middorsal and adjacent halves of paravertebral scale rows | Well defined on row 4 and adjacent halves of rows 3 and 5 | Uniformly tan | Slight extension of tan coloration of first scale row |
| *T. olympia* | Interrupted dorsally, extends onto parietals and crosses last supralabial | Reduced to series of spots on vertebral scale row (one per scale) | Well defined, consisting of spots on 4th scale row | Pale center, edged with dark pigment | Darkly pigmented |
| *T. psittaca* | Complete dorsally or not, extends onto parietals and crosses last supralabial | Occupies middorsal and adjacent one third to one half of paravertebral scale rows | Occupies adjacent halves of scale rows 3 and 4 | Lower two thirds pale, area with pale pigment slightly decreasing posteriorly on body | Immaculate pink anteriorly grading to red on posterior two-thirds of body |
| *T. reticulata* | Interrupted dorsally, extends onto parietals and crosses last supralabial | Occupies middorsal and adjacent halves of paravertebral scale rows | Well defined on row 4 and adjacent halves of rows 3 and 5 | Uniformly pale brown | Darkly pigmented |
| *T. slavensi* | Interrupted dorsally, confined to scales posterior to parietals, crosses last supralabial | Confined to middorsal scale row, becoming increasingly obscured and fragmented posteriorly | Occupies adjacent thirds of scale rows 3 and 4 | Lower half pale, distinctly set off from dark brown upper half | Immaculate orange |

**Table 2 (continued).** Selected characteristics of the color pattern in members of the *Tantilla taeniata* group. Modified from Townsend et al. (2013).

| Species | Nuchal band | Pale middorsal stripe | Pale lateral stripe | Paraventral scale | Lateral edges of ventral scales |
|---|---|---|---|---|---|
| *T. stenigrammi* | Complete dorsally, extends onto the edges of the parietals and crosses the last supralabial | Confined to middorsal scale row, at least on anterior half and extending onto adjacent edges of paravertebral scale rows posteriorly on body | Occupies adjacent halves of rows 3 and 4 | Lower half to two-thirds of scale row 1 colored similarly to ventrals | Immaculate white |
| *T. striata* | Reduced to two nuchal spots, extending onto parietals or not and crossing last supralabial or not | Occupies middorsal and adjacent halves of paravertebral scale rows | Occupies adjacent halves of scale rows 3 and 4 | Uniformly pale brown | Immaculate cream |
| *T. taeniata* | Usually complete dorsally, extends onto parietals and crosses last supralabial | Occupies middorsal and adjacent halves of paravertebral scale rows | Occupies adjacent halves of scale rows 3 and 4 | Lower half pale, distinctly set off from dark upper half | Usually immaculate cream anteriorly grading to yellow posteriorly, but sometimes with a few small dark spots |
| *T. tayrae* | Poorly indicated, interrupted dorsally or dorsally and laterally, confined to scales posterior to parietals, crosses last supralabial | Absent or barely indicated, consisting of series of disjunct slightly paler spots on anterior portion of middorsal scales the length of the trunk or some portion of anterior end thereof | Absent or barest indication of one on adjacent halves of scale rows 3 and 4 on anterior portion of trunk | Uniformly dark brown | Dark spot on extreme anterolateral portion of each ventral |
| *T. tecta* | Complete dorsally, extends onto parietals and crosses last supralabial | Confined to middorsal scale length of body | Occupies adjacent halves of scale rows 3 and 4 | Uniformly brown | Edged with color same as that of paraventral row |
| *T. trilineata* | Complete dorsally, position relative to parietals not documented, crosses last supralabial | Confined to middorsal scale row | Occupies adjacent halves of scale rows 3 and 4 | Unknown | Immaculate cream |
| *T. triseriata* | Complete dorsally, extends onto parietals and crosses last supralabial | Confined to middorsal scale row anteriorly, expanding to adjacent halves of paravertebral rows posteriorly | Occupies adjacent halves of scale rows 3 and 4 | Unpigmented on anterior half or more of trunk, upper half of scale darkly pigmented thereafter | Immaculate pale yellow |
| *T. tritaeniata* | Interrupted dorsally, in some cases also laterally, extends onto parietals, and crosses last supralabial | Occupies middorsal and one third to two-thirds of paravertebral rows | Occupies adjacent two-thirds of scale rows 3 and 4 | Lower tip pale, decreasing in amount of coverage posteriorly | Immaculate cream |
| *T. vulcani* | Usually complete dorsally, extends onto parietals and crosses last supralabial | Reduced to series of small spots on vertebral scale row (one per scale) | Occupies adjacent halves of scale rows 3 and 4 | Uniformly brown | Darkly edged with color similar to that of paraventral row; remainder of venter white |

in *T. oaxacae*, darkly pigmented in *T. olympia* and *T. reticulata*, immaculate pink anteriorly grading to red on posterior two-thirds of body in *T. psittaca*, immaculate orange in *T. slavensi*, usually immaculate, but sometimes with a few small dark spots in *T. taeniata*, dark spot on extreme anterolateral portion of each ventral in *T. tayrae*, and edged with same color as that of paraventral row in *T. tecta*, and darkly edged with color similar to that of paraventral row, remainder of venter white in *T. vulcani*).

**Description of holotype (Figs. 1–2).** An adult male, with partially everted hemipenes, measuring 262 mm SVL and 82 mm TL (TOL = 344 mm; 23.9% of TOL). The head is slightly broader than the attenuate body; HL 8.5 mm; HW 5.1 mm; ED 1.4 mm, about 16.5% of HL; snout length 4.8 mm, about 56.4% of HL; snout rounded in dorsal and lateral views; pupil circular; rostral in the shape of an inverted triangle (2.1 mm in length by 1.1 mm in width), 1.9 times wider than long; internasal (0.9 mm in length by 1.7 mm in width), 1.9 times wider than long, contacting anterior and posterior nasal, and relatively large nostril; short suture between pre- and postnasals, below nostril; prefrontal more or less quadrangular (1.7 mm in length by 1.9 mm in width), anterior portion wider than the posterior portion prefrontal, 1.5 times longer than intersuture length; parietal (4.0 mm in length by 2.1 mm in width), about 1.9 times longer than wide; prefrontal suture 1.2 mm in length; frontal (2.5 mm in length by 1.9 mm in width), pentagonal in shape, approximately 1.3 times longer than wide, approximately as long as the distance from its anterior edge to tip of snout; supraocular (1.9 mm in length by 0.9 mm in width) approximately 2.1 times longer than wide; central portion of parietal 1.9 times longer than wide; parietals in contact with five nuchal scales; border of orbit in contact with parietal, upper postocular, supraocular, and frontal; rostral in contact with anterior nasal, internodal, and supralabial 1; anterior nasal in contact with the rostral, nostril, and first supralabial; posterior nasal in contact with nostril, prefrontal, and supralabials 1 and 2; relatively large nasal fossa located between anterior nasal and posterior nasal; loreal absent; preocular single, of inverted pentagonal shape (0.7 x 0.9 mm), lower margin contacting supralabials 2 and 3; postoculars 2/2, upper scale of roughly pentagonal shape (0.8 x 0.6 mm); temporals 1+1, anterior temporal (1.9 x 0.9 mm) longer than wide, posterior temporal (2.0 x 1.0 mm) longer than wide; supralabials 7/7, supralabial 1 in contact with supralabial 2 and nasals, supralabial 2 in contact with supralabial 1 and 3, preocular, and prefrontal, 3 and 4 bordering the eye, 4 and 5 contacting the lower postocular, 5, 6, and 7 bounding the ventral border of the anterior temporal, 7 contacting the anterior and posterior temporal, and the scales of the pale collar; a pair of chin shields present, anterior ones 1.7 times longer than wide, in contact with infralabials 1, 2, 3 and 4, infralabial 6/6, first four in contact with chin shields; and four preventral scales present between the posterior chin shields and first ventral. Dorsal scales in 15-15-15 smooth rows throughout the body, without apical pits or supra-cloacal tubercles; dorsal scales 6 at the 10th subcaudal; ventral 169; cloacal shield divided; subcaudals 75, paired; ventrals plus subcaudals 244. Hemipenes slightly everted, bilobed, well-differentiated, pedicel naked and smooth, apical region with large spines.

**Coloration of holotype in life (Figs. 1–2).** Dark dorsolateral region of body Prout's Brown (47); pale middorsal stripe Clay Color (18) present on the middorsal scales and one-fourth of the adjacent portion of the paravertebral scales on anterior portion of body up to ventral 38, thence narrowing to cover only the median two-thirds of middorsal scale on remainder of body, edged with Sepia (286); pale lateral stripe located on adjacent halves of dorsal scale rows 3 and 4 Chamois (84) in color, grading to Tawny Olive (17) on posterior portion of body, bordered on upper half of row 4 with Sepia (286), ventrolateral portion of body from ventral half of row 3 to dorsal portion of row 1 Sepia (286); ventral portion of scale row 1 Smoky White (261); dorsal surface of head from rostral to anterior two-thirds of parietals Buff (15), with Sepia (286) edging on some scale edges; posterior portion of head cap edged with Sepia (286) margin on lateral edges of parietals, upper postocular, upper edge of anterior temporal, upper half of posterior temporal, and anterior half of adjacent nuchal scale; this dark head cap margin confluent with Sepia (286) subocular spot on anterior edge of lower postocular, upper portions of supralabials 3 and 4, and posterodorsal corner of supralabial 2, not touching lip; iris Jet Black (300); lateral portion of head Pale Buff (1), except for Sepia (286) spot on adjacent portions of supralabials 6 and 7, representing isolated segment of lateral extension of head cap, completely separated from dorsal portion of head cap; pale preocular and postocular spots confluent below dark subocular spot; pale nuchal band Light Buff (2) grading to Pale Buff (1) laterally, extending onto posterior tips of parietals where color is Yellow Ocher (14), narrowly divided by middorsal connection between posterior edge of head cap and a Sepia (486) nape band three middorsal scales long, which abuts and edges posteriorly a Yellow Ocher (14) spot covering most of four dorsal scales and is separated from pale middorsal stripe, which begins about one scale posterior to that point; venter of head Pale Buff (1), with Sepia (286) spot on mental and similarly-colored spots on medial portion of each infralabial 4; venter of body and tail Pale Buff (1).

**Coloration of holotype in preservative.** After seven months of preservation, the holotype exhibited the following coloration: dark dorsolateral region of body Drab (19), located between two pale stripes; Smoky White (261) stripe with Sepia (286) edges covering the vertebral scales and one-fourth of the adjacent potion

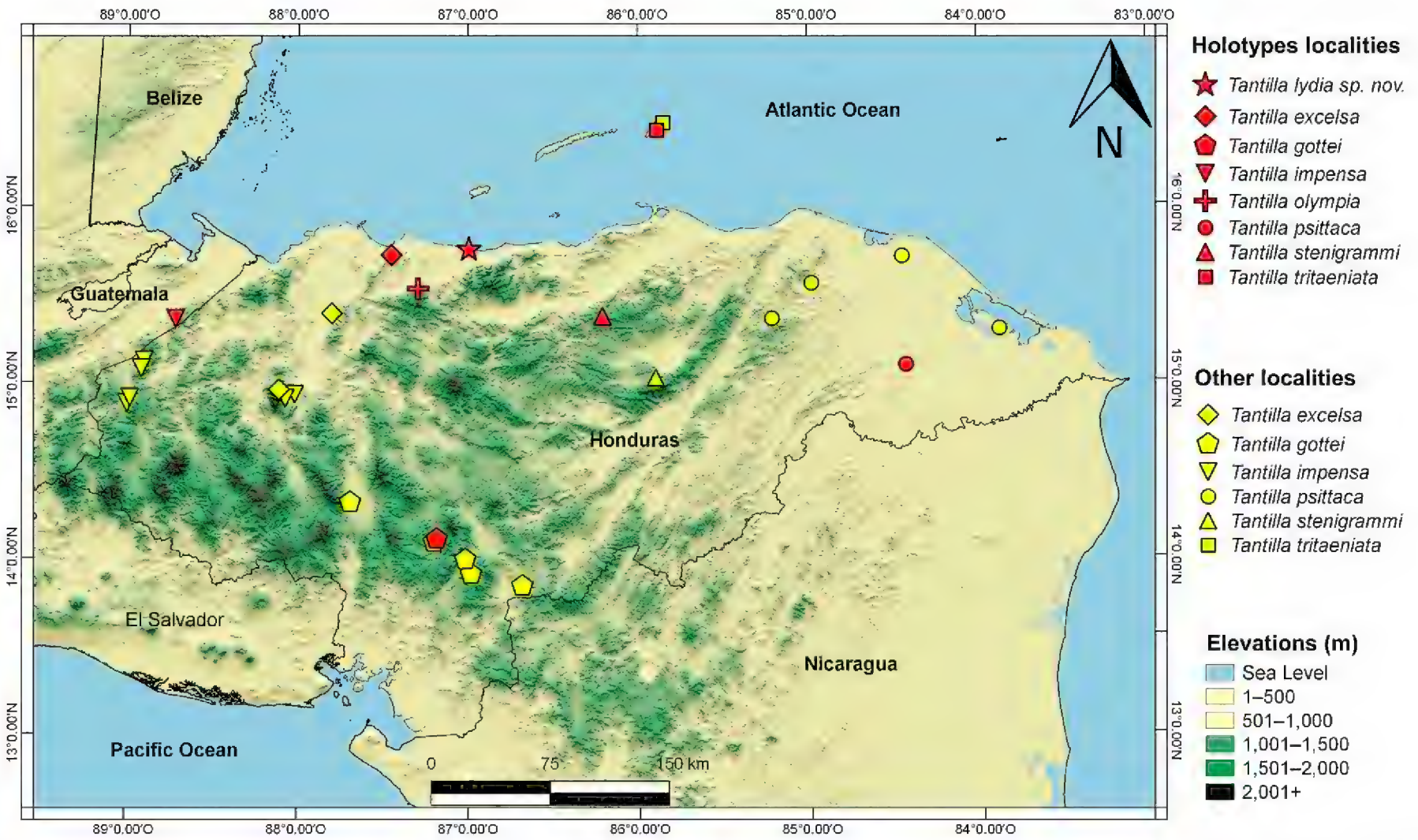


**Fig. 3**. Distribution of the species of the *Tantilla taeniata* group in Honduras. The star indicates the type locality of *Tantilla lydia* **sp. nov.** The most northwestern location of *Tantilla gottei* was recently published by Orellana Murillo et al. (2020).

of the paravertebrals, to a point 38 ventral scales along the body, after which this stripe narrows to occupy only middorsal scale row for remainder of body; adjacent portions of dorsal scales 3 and 4 Pale Buff (1), edged by Sepia (286) above, area below lateral pale stripe Hair Brown (276); paraventral portion of dorsal scale row 1 immaculate Pale Buff (1), as are the ventral scales. Dorsal head cap is Hair Brown (276), rimmed on posterior portion by Sepia (286); pale nuchal color is Pale Buff (1), divided narrowly middorsally by a Sepia (286) line connecting posteriorly to the Sepia (286) nape band; side of head is Pale Buff (1), with a Sepia (286) subocular spot not touching lip and a Sepia (286) spot on posterior portion of supralabial six and anterior portion of supralabial seven; chin Pale Buff (1) colored with Sepia (286) spots on mental and fourth infralabials.

**Etymology**. We are privileged to name this new species of snake in honor of Dr. Lydia Allison Fucsko who resides in Melbourne, Australia, and is an amphibian conservationist and environmental activist. As an internationally published photographer, she has taken countless pictures of amphibians, including photo galleries of mostly southeastern Australian frogs. Dr. Fucsko has a Bachelor of Arts in Humanities from La Trobe University (Bundoora, Victoria, Australia), and a Diploma in Education from The University of Melbourne (Parkville, Victoria, Australia). She has postgraduate diplomas in computer education and in vocational education and training from The University of Melbourne (Parkville). Additionally, Dr. Fucsko holds a Master's Degree in Counseling from Monash University (Clayton, Victoria, Australia). She received her Ph.D. on environmental education, which promoted habitat conservation, species perpetuation, and global sustainable management, from Swinburne University of Technology (Hawthorn, Victoria, Australia), while being mentored by the late world-renowned Australian herpetologist and academic Dr. Michael James Tyler (Order of Australia recipient). Dr. Fucsko, an educational consultant, was responsible for major enhancements in the quality of the images provided herein and is also a research collaborator with the fifth author (LDW). Dr. Fucsko's academic interests include: clinical psychology, focusing on psychopathology; neuroscience and empathy; environmental education for sustainable development; sentient ecology; academic writing; and creative writing, including poetry and creative nonfiction books for children and young adults. We use Dr. Fucsko's given name as a noun in apposition, with the spelling of the Latin transliteration from the Ancient Greek Λυδία (Ludia), meaning "beauty, beautiful, noble one." Thus, the snake named here as *Tantilla lydia* **sp. nov.** can be envisioned as the "beautiful one."

**Distribution and habitat (Figs. 3–4).** *Tantilla lydia* **sp. nov.** is known only from a narrow strip of disturbed Coastal Scrub habitat in the Lowland Wet Forest (LWF; Holdridge 1967). In the vicinity of the holotype collection location, the predominant plant families and species are: Myrtaceae (*Syzygium cumini*, Indian Blackberry or Malabar Plum); Arecaceae (*Elaeis guianensis* and *Cocos nucifera*, African Oil Palm and Coconut Palm, respectively); Melastomataceae (*Conostegia xalapensis*, Canelito); Fabaceae (*Abrus precatorius*, Rosary Pea);

**Table 3.** Selected features of distribution and conservation status of the members of the *Tantilla taeniata* group. Country distribution abbreviations as follows: Belize = B; Colombia = C; Costa Rica = CR; El Salvador = ES; Guatemala = G; Honduras = H; Mexico = M; Nicaragua = N; Panama = P. Ecological formations are abbreviated as follows: LAF = Lowland Arid Forest, LDF = Lowland Dry Forest, LMF = Lowland Moist Forest, LWF = Lowland Wet Forest, PDF = Premontane Dry Forest, PMF = Premontane Moist Forest, PWF = Premontane Wet Forest, LMDF = Lower Montane Dry Forest, LMMF = Lower Montane Moist Forest, LMWF = Lower Montane West Forest. EVS = Environmental Vulnerability Scores (explained in text). EVS categorization as follows: M = medium; H = high. IUCN categorization as follows: CR = Critically Endangered; EN = Endangered; VU = Vulnerable; LC = Least Concern; DD = Data Deficient; and NE = Not evaluated. Conservation priority levels are explained in the text.

| Species | Country distribution | Ecological distribution | Elevational distribution | Versant distribution | EVS | EVS category | IUCN category | Conservation priority level |
|---|---|---|---|---|---|---|---|---|
| *T. lydia* **sp. nov.** | H | LMF | 7 m | Atlantic | 16 | H | NE | One |
| *T. berguidoi* | P | PWF | 1,376 m | Pacific | 16 | H | NE | One |
| *T. brevicauda* | G, ES | PMF, PWF, LMWF | 1,200–1,510 m | Pacific | 13 | M | LC | Eight |
| *T. briggsi* | M | LMF | 95 m | Atlantic | 16 | H | DD | One |
| *T. cuniculator* | B, M | LAF, LDF | near sea level–100 m | Atlantic | 13 | M | LC | Seven |
| *T. excelsa* | H | LDF, LMF, PWF | 30–700 m | Atlantic | 13 | M | NE | Eight |
| *T. flavilineata* | M | LMDF, LMMF | 1,800–2,300 m | Atlantic | 14 | H | EN | One |
| *T. gottei* | H | LDF, PDF, PMF | 500–1,280 m | Pacific | 14 | H | NE | One |
| *T. hendersoni* | B | PMF | 194–580 m | Atlantic | 16 | H | DD | One |
| *T. impensa* | G, H, M | LMF, PMF, PWF, LMWF | near sea level–1,600 m | Atlantic | 10 | M | LC | Eight |
| *T. jani* | G | PWF | 1,050 m | Pacific | 14 | H | VU | Two |
| *T. johnsoni* | M | LDF | 450 m | Pacific | 16 | H | DD | One |
| *T. oaxacae* | M | PMF, LMMF | 600–1,600 m | Pacific | 15 | H | DD | One |
| *T. olympia* | H | PWF | 1,150 m | Atlantic | 16 | H | NE | One |
| *T. psittaca* | H | LMF | 5–420 m | Atlantic | 15 | H | VU | One |
| *T. reticulata* | C, CR, N, P | LMF, PWF | 10–1,345 m | Atlantic and Pacific | 13 | M | LC | Nine |
| *T. slavensi* | M | LMF, PWF | 50–800 m | Atlantic | 14 | H | DD | One |
| *T. stenigrammi* | H | PMF | 895–1,180 m | Atlantic | 15 | H | NE | One |
| *T. striata* | M | LDF, PMF | 0–1,500 m | Pacific | 14 | H | DD | Two |
| *T. taeniata* | G | PMF | 1,020–1,550 m | Pacific | 14 | H | LC | Two |
| *T. tayrae* | M | LMF, PWF | 500–1,000 m | Pacific | 15 | H | DD | One |
| *T. tecta* | G | LDF | 220 m | Atlantic | 16 | H | DD | One |
| *T. trilineata* | Unknown | Unknown | Unknown | Unknown | — | — | — | — |
| *T. triseriata* | M | LDF, PMF, PWF | 500–1,200 m | Atlantic and Pacific | 13 | M | DD | Eight |
| *T. tritaeniata* | H | LWF | near sea level | Caribbean insular | 16 | H | CR | One |
| *T. vulcani* | G, M | LDF, LMF, PWF | 500–700 m | Pacific | 12 | M | NE | Seven |

and Marantaceae (*Thalia geniculata*, Fire-flag). The male holotype of this snake was found active on 21 May 2018 during a night with clear skies at 2230 h, between the rails of the old Standard Fruit Company railroad track, 566 m southwest in a straight line from the center of the Comunidad de Salado Barra, approximately 450 m from the Río Salado, 590 m from the community beach, and 5,900 m from the Comunidad de La Unión. An association of mangrove forest species predominates to the west of the type locality on the banks of the aforementioned river, and includes *Rhizophora mangle* (Red Mangrove), *Conocarpus erectus* (Buttonwood), *Avicennia germinans* (Black Mangrove), and *Laguncularia racemosa* (White Mangrove). *Tantilla lydia* **sp. nov.** shares its microhabitat with other amphibians and reptiles, such as *Dendropsophus microcephalus*, *Scinax staufferi*, *Smilica baudinii*, *Basiliscus vittatus*, *Coniophanes imperialis*, and *Bothrops asper*.

**Conservation status.** Applying the IUCN Red List criteria (IUCN 2012; IUCN Standards and Petitions Committee 2019) to *Tantilla lydia*, indicates that this species should be considered Critically Endangered (B1ab[iii]) due to the known distribution being limited to a single highly-intervened, threat-defined area of lowland Coastal Strand habitat of < 10 km$^2$ in total extent, which has undergone extensive loss of remaining habitat due to deforestation and development. Efforts are underway to restore this habitat, and it is likely that further survey work in nearby coastal areas could uncover additional habitat and/or populations. Given the single known locality of *Tantilla lydia* **sp. nov.**, its unknown population size, unknown extent of geographic and ecological distribution, and significant and continuing degradation of habitat in the vicinity of the type locality, we propose an Environmental Vulnerability Score (EVS) of 16 (6+8+2) within the "High Vulnerability" category (Wilson and McCranie 2003; Johnson et al. 2015).

**Fig. 4.** Type locality and surrounding habitat for *Tantilla lydia* **sp. nov.** showing the train tracks where the holotype was collected, Comunidad de Salado Barra, La Unión, Departamento de Atlántida, Honduras. *Photo by Cristopher Antúnez-Fonseca.*

## Discussion

This species represents an addition to the genus *Tantilla* (Baird and Girard 1853) and is assigned to the *T. taeniata* group on the basis of features of color pattern. As noted above, the *T. taeniata* group was considered to comprise 25 species until now, with the description of *T. lydia* **sp. nov.** bringing the number to 26. Wilson (1999) listed 18 species for this group: *T. brevicauda*, *T. briggsi*, *T. cuniculator*, *T. flavilineata*, *T. impensa*, *T. jani*, *T. johnsoni*, *T. oaxacae*, *T. reticulata*, *T. slavensi*, *T. striata*, *T. taeniata*, *T. tayrae*, *T. tecta*, *T. trilineata*, *T. triseriata*, *T. tritaeniata*, and *T. vulcani*. Since the summary provided by Wilson (1999), an additional seven species have been described: *T. berguidoi* (Batista et al. 2016), *T. excelsa* (McCranie and Smith 2017), *T. gottei* (McCranie and Smith 2017), *T. hendersoni* (Stafford 2004), *T. olympia* (Townsend et al. 2013), *T. psittaca* (McCranie 2011), and *T. stenigrammi* (McCranie and Smith 2017).

Members of the *T. taeniata* group are distributed in all Mesoamerican countries and the northwestern-most country of South America, i.e., Colombia (Table 3), as follows: Mexico (11 species), Belize (two), Guatemala (six), El Salvador (one), Honduras (eight), Nicaragua (one), Costa Rica (one), Panama (two), and Colombia (one). Most of this group's species are limited in distribution to single countries (i.e., endemic), amounting to 20 of the 26 species (Table 3). Thus, only five of the species are found in more than one country: *T. brevicauda* (Guatemala and El Salvador), *T. cuniculator* (Mexico and Belize), *T. impensa* (Mexico, Guatemala, and Honduras), *T. reticulata* (Nicaragua, Costa Rica, Panama, and Colombia), and *T. vulcani* (Mexico and Guatemala).

Members of the *T. taeniata* group are found in most of the forest formations which occur throughout the group's range (Table 3) at low, moderate, and intermediate elevations (ranging from near sea level to 2,300 m). Seventeen species are distributed at low elevations (sea level to 600 m), sixteen at moderate elevations (601–1,500 m), and five at intermediate elevations (1,501–2,300 m). More specifically, the numbers of species found in particular forest formations are as follows (Table 3): Lowland Moist Forest (nine species), Lowland Dry Forest (eight), Lowland Arid Forest (one), Premontane Wet Forest (11), Premontane Moist Forest (nine), Lower Montane Wet Forest (two), Lower Montane Moist Forest (two), and Lower Montane Dry Forest (one). Thirteen of the 26 species (50.0%) occupy more than one forest formation; the remainder are found in only a single formation.

Most of the species in the *T. taeniata* group (22 of 26 species; 84.6%) are limited to occurrence on only one versant. Of the 22 single-versant species, 10 are limited to the Pacific versant and 12 to the Atlantic versant. Only two species (*T. reticulata* and *T. triseriata*) occupy both versants, and one other species (*T. tritaeniata*) is of insular distribution (on the Bay Islands of Honduras).

The conservation status of the members of the *T. taeniata* group were examined using the IUCN and EVS systems. The IUCN system is the more broadly used of the two systems, but proves to be less useful for comprehensive conservation assessment than the EVS system (Table 3). For example, the largest number of species (nine) is allocated to the Data Deficient category of IUCN and the next largest (seven) to the Not Evaluated category. These two categories, which divulge no useful information about the conservation status of the species involved, are applied to 16 species, or 61.5% of the 25 species in the *taeniata* group that can be categorized. (Note that *T. trilineata* is too poorly known to allow for categorization, because it is known only from the holotype from an unknown locality). Five species are allocated to the Least Concern category (*T. brevicauda*, *T. cuniculator*, *T. impensa*, *T. reticulata*, and *T. taeniata*). With the exception of *T. taeniata*, the remaining four are the most broadly distributed geographically and ecologically, and are allocated to the threatened categories of Critically Endangered (*T. tritaeniata*), Endangered (*T. flavilineata*), and Vulnerable (*T. jani* and *T. psittaca*).

The EVS system (Wilson et al. 2013a,b; Johnson et al. 2015) is of greater utility, as all species, other than *T. trilineata*, can be categorized (Table 3). The EVS range from 10 to 16, with an average score of 14.4. Eighteen of the 25 species that can be categorized (72.0%) are allocated to the high vulnerability category (with scores ranging from 14 to 16); the remaining seven (28.0%) are placed in the medium vulnerability category (with scores ranging from 10 to 13). Thus, none of the species are allocated to the low category of vulnerability. Typically, Mesoamerican species of *Tantilla* are restricted in distribution and this phenomenon is reflected in their generally high EVS.

Johnson et al. (2017) and Mata-Silva et al. (2019) introduced the concept of conservation priority levels by combining patterns of physiographic distribution with environmental vulnerability scores. These levels

can theoretically range from one to 24 in Mesoamerica, but practically range from one to 18. For the species of the *T. taeniata* group these levels (Table 3) range from one to nine, as follows: one (15 species), two (three), seven (two), eight (four), and nine (one). Fifteen of the 25 species (60.0%) for which the priority levels can be determined are allocated to conservation priority level one and, thus, merit the greatest degree of conservation attention among the species in the *T. taeniata* group (Table 3).

The holotype of *Tantilla lydia* was found in a strip of forest in the "regeneration" stage in the middle of a cultivation of *Cocos nucifera* adjoining a mangrove forest almost 0.5 km from the Río Salado. Although in some respects, the known ecology of *T. lydia* is similar to that of other species within the *T. taeniata* group in Honduras; specifically, all of these species occur in leaf litter, although *T. lydia* occurs at lower elevations than the other species and, unlike the other species in this group, it was found in Lowland Wet Forest (Holdridge 1967). In contrast, *T. excelsa* occurs mainly at higher elevations and almost exclusively in Premontane Moist Forest and Lowland Dry Forest, but also in Lowland Wet Forest and typically in proximity to rivers; *T. gottei* also occurs at higher elevations than *T. lydia* and is found in pine forests within the Premontane Moist Forest and Lowland Dry Forest zones in the middle basin of the Choluteca River in south-central Honduras; *T. impensa* occurs in Tropical and Subtropical Humid Forests, mainly in primary forests and is known to use rotting logs for refuge, as well as leaf litter; *T. olympia* is known from Premontane Moist Forest; *T. psittaca* occurs at similar elevation but in Broadleaf Primary Rain Forest and Pine Savanna, and also occurs in rotting logs; *T. stenigrammi* occurs at higher elevations in disturbed pine-oak forest and Lower Montane Wet Forest adjacent to the Sico Tinto River; and *T. tritaeniata* occurs at similar low elevations as *T. lydia*, but only on Isla Guanaja (Ariano-Sánchez and Sunyer 2013; Campbell 1998; McCranie 2011a; McCranie and Smith 2017; Smith and Williams 1966; Townsend et al. 2013). Thus, *T. lydia* is distinct from other species within the *Tantilla taeniata* group in Honduras in terms of its distribution and ecology, as well as its morphology.

This discovery highlights the fauna of the Refugio de Vida Silvestre Barras de Cuero y Salado (RVSBCS), and the importance of establishing and maintaining a network of protected areas to ensure the conservation of representative communities throughout the country of Honduras. Human activities in the landscape surrounding the RVSBCS involve the maintenance of agricultural systems (i.e., banana, coconut, and African oil palm), livestock production, and human settlements. These activities have reduced significantly the area of the ecosystem within which *T. lydia* evolved. Additionally, existing patches of potential habitat are threatened by continued intensification of these human activities, which results in further reduction in available habitat or fragmentation that interrupts the connectivity of existing forest patches (Ferrán 1992). As such, the long-term conservation of *T. lydia* is likely at risk. While no attempts are underway to quantify the species' population status, it is likely to be decreasing, as is the case with many of the other species of flora and fauna restricted to this region

One final note regarding the taxonomy of the *T. taeniata* group needs to be mentioned. As indicated by McCranie and Smith (2017: 346), "problems remain with the taxonomy of the El Salvadoran and Nicaraguan specimens identified in the literature as *T. taeniata*. Köhler (2003, 2008) and Sunyer and Köhler (2007) provided photographs of recently collected Nicaraguan specimens, and Köhler et al. (2005) included a photograph of a recently collected El Salvador specimen. These specimens also need to be addressed in light of the new taxonomic change[s]." This work remains to be completed.

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**Revised Key to Members of *Tantilla taeniata* Group**

Townsend et al. (2013) published the most recent key to the members of the *Tantilla taeniata* group. Since that paper appeared, several new species have been described and placed in this group (Batista et al. 2016; McCranie et al. 2017; and herein), so this is an opportune time to revise the key for the identification of 25 of the 26 species now recognized (the information available on *T. trilineata* remains insufficient to include this poorly known taxon in the key; see Tables 1 and 2).

1. Pale middorsal stripe absent.....2
Pale middorsal stripe present, variously developed.....6
2. Pale lateral stripe present along length of body.....3
Pale lateral stripe interrupted along middle of body, present only on anterior portion of body, or absent...4
3. Pale nuchal band divided middorsally and laterally, pale lateral stripe well developed... *T. jani* (in part)
Pale nuchal band complete; pale lateral stripe barely discernible.....*T. cuniculator*
4. Pale lateral stripe present but interrupted along middle of body.....*T. briggsi*
Pale lateral stripe, if present, confined to anterior portion of body.....5
5. Pale nuchal band poorly developed, confined to scale posterior to parietals; subcaudals fewer than 60 (known range, 44–51).....*T. tayrae* (in part)
Pale nuchal band well developed, extending onto parietals; subcaudals more than 60 (single known value, 62).....*T. johnsoni*
6. Subcaudals fewer than 30 (known range, 21–26).....*T. brevicauda*
Subcaudals more than 30.....7
7. Pale lateral stripe occupies rows 4 and adjacent halves of rows 3 and 5.....8
Pale lateral stripe occupies adjacent halves of rows 3 and 4 or restricted to row 4.....11
8. Pale nuchal collar does not cross last supralabial.....*T. oaxacae*
Pale nuchal collar crosses last supralabial.....9
9. Pale nuchal collar divided medially; well-developed dark stripe present on lateral edges of ventrals.....*T reticulata*
Pale nuchal collar complete; venter essentially immaculate.....10
10. Pale middorsal stripe confined to middorsal scale row; subcaudals 65 (single known value).....*T. berguidoi*
Pale middorsal stripe occupies middorsal scale row and adjacent halves of paravertebral rows; subcaudals 56 or fewer (known range, 43–56).....*T. flavilineata*
11. Pale nuchal band reduced to two nuchal spots.....*T. striata*
Pale nuchal band complete, divided medially, or divided both medially and laterally.....12
12. Pale middorsal stripe on middorsal scale row and some portion of paravertebral rows at least on posterior portion of body.....13
Pale middorsal stripe confined to middorsal scale row, or on middorsal scale row and some portion of paravertebral rows on anterior portion of body, continuing on or reducing to middorsal row on posterior portion of body.....19
13. Pale middorsal stripe confined to middorsal scale row anteriorly, expanding to some portion of paravertebral rows posteriorly.....14
Pale middorsal stripe on middorsal scale row and some portion of paravertebral rows along length of body.....15
14. Lower half to two-thirds of paraventral scale row colored similarly to ventrals.....*T. stenigrammi*
Paraventral scale row pigmented on anterior half or more of trunk, upper half of scale darkly pigmented thereafter.....*T. triseriata*
15. Ventral surface some shade of red.....16
Ventral surface yellow or white.....17
16. Ventral scales 153 or more (range 153–163).....*T. psittaca*
Ventral scales 152 or fewer (range 141–152).....*T. taeniata*
17. Pale nuchal collar divided.....*T. tritaeniata*
Pale nuchal collar complete.....18
18. Ventrals 142–158 in both sexes combined.....*T. gottei*
Ventrals 161–178 in both sexes combined.....*T. excelsa*
19. Pale middorsal stripe on middorsal scale row and adjacent one-third of paravertebral rows on anterior portion of body, reducing to middorsal row on posterior portion of body.....*T. lydia*
Pale middorsal stripe confined to middorsal scale row, either as continuous stripe or as fragmented series of spots.....20

20. Pale middorsal stripe fragmented, consisting of series of isolated spots.....21
Pale middorsal stripe complete, but confined to middorsal row.....24
21. Pale lateral stripe consisting of series of spots on dorsal scale row 4.....*T. olympia*
Pale lateral stripe absent or present on some portion of dorsal scale rows 3 and 4.....22
22. Pale lateral stripe absent or barely evident on adjacent halves of dorsal scale rows 3 and 4 on anterior portion of body.....*T. tayrae* (in part)
Pale lateral stripe present on adjacent portions of dorsal scale rows 3 and 4 length of body.....23
23. Pale nuchal band interrupted both dorsally and laterally.....*T. jani*
Pale nuchal band usually complete.....*T. vulcani*
24. Paraventral scale uniformly brown.....*T. tecta*
Paraventral scale divided into dark upper half and pale lower half.....25
25. Subcaudal scales 56 or fewer (range 52–56).....*T. slavensi*
Subcaudal scales 64 or more (combined range 64–72).....26
26. Ventral scales 157 or fewer (range 153–157).....*T. hendersoni*
Ventral scales 162 or more (range 162–172).....*T. impensa*

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